

W5YI REPORT

Up to the minute news from the worlds of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

Dits & Bits

Fred Maia, W5YI, Editor, P.O. Box 10101, Dallas, TX 75207

VOL. 8, Issue #8

\$1.50

PUBLISHED TWICE A MONTH

April 15, 1986

★ In This Issue ★
Auxiliary Link Expansion Denied
League Files FCC F.O.I.A. Request
Mexican Ham Radio Reciprocity
DX Colvin's Head Back to U.S.
April Fool's Nonsense...

Yemen Operation Proves Hoax
New Ham Class Petition
Ham Certificate Marketed
20-kHz Plan Retained in Alabama
Final Hearing on Privacy Act
Consumer Electronics News
Home Computer Happenings
More on OTH-B Radar
...and much, much more!



FCC Says "No" to Auxiliary Link Spectrum Expansion

The FCC has decided not to adopt its proposal to permit auxiliary operation on all amateur frequencies except 5 MHz (431-433 and 435-438 MHz) to protect weak signal communications, moonbounce experimentation and satellite transmissions.

The Notice of Proposed Rulemaking (PR Docket 85-215) adopted last July 19th was in response to a Quarter Century Wireless Association petition - (RM-4885). The NPRM would have allowed auxiliary operation below 220.5 MHz - the current boundary.

Section 97.3(1) of the Amateur rules defines "auxiliary operation" as radio communication for remotely controlling other amateur radio stations, for automatically relaying the radio signals of other amateur radio stations in a system of stations, or for intercommunicating with other amateur radio stations in a system of amateur radio stations.

WHAT DID THE COMMENTS SAY?

Twelve comments and four reply comments were received by the Commission on the issue. The Texas VHF Society supported the proposal and said that amateur operators who require auxiliary links as part of their radio communications are aware of the band plans that locate auxiliary links away from other types of service. "They cooperate with

local coordinating committees in avoiding interference to other amateur operators."

One commenter said that amateur operation below the six meter band was not generally confined to band plans and that HF auxiliary operation could suffer interference. QCWA and Advanced Computer Controls, Inc., both stressed the need for the removal of restrictions surrounding auxiliary operation so that "there can be experimentation with new technologies."

The ARRL opposed the proposal noting that the HF and MF bands "are already heavily loaded". QCWA had contended that allowing auxiliary operation on all amateur frequencies "would provide the amateur service with options such as in-band control, cross-polarization of antennas, new cross-band modes of operation, and independent sideband for simultaneous control and repeater operation" (referenced to the same suppressed carrier frequency.)

The League argued that those contentions "fail to take into account questions of spectrum efficiency stemming from the use of HF and low-VHF amateur frequencies for auxiliary operation." The ARRL pointed out that path lengths for fixed-link, remote control or relay auxiliary operation are generally short, this failing to justify use of frequencies below

W5YI REPORT.....

Page #2

April 15, 1986

220.5 MHz." The ARRL further stated that "band crowding at MF and HF frequencies makes those bands unsuited for auxiliary operation, as does the inability to conduct local frequency coordinations for auxiliary purposes." It said that "interference in the 2-meter band would result because it is fully loaded in many areas of the country."

The ARRL commented that auxiliary operation "is fundamentally incompatible with amateur MF and HF operation because it generally requires fixed, dedicated frequencies and transmission paths." There were other commenters that agreed with the League.

THE ENVELOPE PLEASE....

After considering the comments on both sides of the issue of expanding auxiliary operation in the Amateur Service, the FCC was persuaded not to adopt their proposal.

"It is apparent from the comments that the rules presently reflect a good match between the frequencies authorized for auxiliary operation and auxiliary link functions. The potentially disruptive interference which could occur to other amateur operations on MF and HF frequencies if auxiliary operation were expanded and the lack of justification for using spectrum below 220 MHz outweigh the additional flexibility which could be achieved by the proposal."

The FCC denied and terminated the proceeding in a release dated March 26th. (Action by FCC Commissioners, 3/20/86.)

LEAGUE FILES F.O.I.A. REQUEST....

The ARRL has filed a Freedom of Information Act request with the FCC for the 1985 annual VE and VEC certifications of the various volunteer examination programs. The Annual Certification, required by § Part 97.36(c) of the Rules, certifies to the Commission that any expense funds recouped by those conducting amateur radio operator examinations were "necessarily and prudently incurred."

I spoke to Dave Sumner, K1ZZ, the League's Executive Vice President, about this

last week. He told me that the FOIA request was brought about by the ARRL Director's January-1986 Board Meeting ("Minute 94") which asked the staff to look into the FCC enforcement of the new volunteer examining program rules. "Some VEC's may not have required annual certifications. VE's receiving expense funds during the year must be disaccredited [dropped from the program] if the certification is not provided [to the FCC]."

We also spoke the ARRL's recently hired Assistant VEC Manager, "Mac" McGrath, KZ1A about the FOIA request. "Mac" (from Narragansett, Rhode Island) replaces Jim Clary, WB9IHH, who moved up to the top VEC slot. He told me that the League had already received the VE certifications from the various VEC programs and that "the stack is about 18" high." He said the League was in the process of analyzing them.

The W5YI-VEC program sent in over a thousand VE Expense certifications to the FCC in Gettysburg weighing several pounds. It really was a hardship collecting them since, unlike most VEC programs, we share expense reimbursement with our volunteer examiners. We have no way of knowing whether the funds are put into a continuing fund to finance current and future test session expenses or disbursed to individual VE's.

It took us three separate mailings (and several hundred dollars in printing and postage) to get them. We also had to dis-accredit a few VE's for failure to return the certification. They were notified in writing.

For 1986, we are asking that the required expense certification be completed as part of the examination session rather than at year end. Hopefully this will greatly reduce our year end administrative and financial burden.

MEXICAN HAM RECIPROSITY ON THE WAY?

Chris Petroff, XE2IZ, of Chihuahua City, Mexico [about 150 miles of south of the Texas border] reported some startling news from Mexico! Chris is also U.S. licensed as N5HQN in El Paso, Texas. He recently received a Mexican temporary operator permit

W5YI REPORT.....

Page #3

April 15, 1986

thus confirming that they do in fact exist.

Chris said that Mexico in a May-1986 international conference will take positive steps to secure reciprocal operating agreements with many western hemisphere nations.

The word from amateurs in Mexico City in contact with the Secretary of Communications and Transport is that Mexico will take measures to establish automatic reciprocity with the United States. This would be similar to the agreement that the United States and Canada currently have.

It is not known when the reciprocal agreement will go into effect. Chris reported this story via the 3939 kHz New Mexico Roadrunner Net to Bob Scupp, WB5YYX, of Albuquerque on the evening of March 26th.

Chris' past record indicates that he is an accurate source of information. It was he that first reported the existence of the Mexican temporary operating permit issued in the aftermath of the Mexico City earthquake.

I telephoned the FCC's Frank Williams, N5FK, who heads up the Commission's Treaty Branch in Washington to determine if he knew anything about automatic Mexican reciprocity.

"That's news," he said. "I have not heard of that through my own governmental channels. I do know that there are some discussions going on multilaterally. We have no idea what the effective date - or even what the final text might be."

"I do know that it was to come up for discussion this Spring at a planned CITEL meeting - an inter-American group dealing with telecommunications. They are scheduled to again address the question of Region 2 wide multi-national recognition of amateur radio licenses ...somewhat similar to international recognition of driver's licenses."

"The meeting will lie the groundwork for reciprocal operation throughout the hemisphere. It would apply to those nations that go along with it. I believe that the original proposal was put together by HK3DEU of Colombia more than a year ago."

DX COLVINS HEAD BACK TO U.S., DAYTON

As we write this, the globe-trotting DX'ers Lloyd (W6KG) and Iris (W6QL) Colvin are on their way back to the U.S. after concluding a six month YASME DX-pedition in Southern Africa.

Lloyd and Iris visited and operated from seven countries with call signs W6KG/ZS (South Africa), ZS3/W6QL (Nambia, Southwest Africa), 7P8KG (Lesotho), 3D6QL (Swaziland), A25/W6KG (Botswana), W6QL/Z2 (Zimbabwe) and 9J2LC (Zambia).

Iris wrote us that she "would like a QSL card for every one of the 50,500 total QSOs that we had! We promise that ALL QSLs received will be answered. An SASE and contribution to the YASME Foundation is appreciated - but NOT required. All QSLs should be sent to: The YASME Foundation, Inc., P.O. Box #2025, Castro Valley, California 94546.)

"During the month of April 1986, we will appear and talk at the Joint Meeting of the Northern and Southern California DX Clubs at Visalia, CA and also at the Dayton Hamvention in Dayton, Ohio. We will also try to come and talk at all radio clubs who ask us. We want to thank all of the radio amateurs of the world for generally fine DX operation during a time that is supposed to be a period of low-sunspot activity and decreased DX openings," they write (on March 24th) from Zambia.

YEMEN OPERATION PROVES TO BE HOAX!

While we are on the subject of DX, a group calling itself The American Federation of D.X. (P.O. Box DX-2, Burke, Virginia 22015) sent out the following bulletin to "All DX Editors - Don Jones, N6ZV, and Dr. Vince Thompson, K5VT, are making plans to operate from North Yemen (7O2) within the next 60 days. Call sign will be 7O2GA. Also anticipated is 4W1GA, South Yemen (actually now called the Yemen Democratic Republic) by the duo for at least an additional 10 days. QSLs to N6ZV"

Located in the middle east, Yemen is one of those nations where ham radio does

W5YI REPORT.....

Page #4

April 15, 1986

not exist! Both count as separate DXCC countries and it would be a DX "biggy" if it occurred! Yemen tops everybody's list of most needed countries! Vince Thompson, K5VT, is a physician and a DX-pedition veteran with a well known reputation in DX circles for activating very rare countries!

Around April 1st, editors have to be very careful about what is printed! We made some phone calls. Neither the president of the Southern California DX Club (Dan Davitt, N6CGB) nor Chod Harris, VP6ML, of the weekly DX Bulletin knew anything about the Yemen operation.

I finally reached Dr. Vince Thompson in Phoenix, Arizona. He said the whole thing was obviously April Fool's mischief! "Nothing to it." Vince said that he had no DX-peditions planned real soon "...maybe later on in the year. We are working on some things later on in the fall." Thompson said his DX operations are in conjunction with his contract work with the State Department. ...So another good story "down the tube." Getting information is easy - factual stuff is another story.

Yemen, by the way, is one of the thirteen nations that have advised the International Telecommunications Union that they forbid outside communications with amateurs under their jurisdiction. The others are Angola, Burma, Ethiopia, Ghana, Iraq, Libya, Pakistan, Saudi Arabia, Somali, Thailand, Turkey, and Zaire.

.....

HAM PETITION - AN APRIL FOOL'S PRANK

We have an idea that the editors of Worldradio may be the victim of another April fool's joke. Maybe not since some publications purposely print "April" articles. The story entitled "New License Class Proposed" on page 12 of the April issue sure has all the earmarks of a legitimate news story.

Supposedly one Hans L. Klager, K6SPF, of Ineptio, California, "licensed since 1971" filed a petition with the FCC seeking a class of no-code amateur radio operator license to be called the "Digital Extra Class." Under the somewhat convincing proposal, applicants would have to pass the written Extra Class

examination requirements with "an added segment pertaining to digital theory." The ability to write a short program or routine in assembly or other high level computer language could be substituted for the Morse Code telegraphy examination.

The petition asks that Extra Class CW portions be reallocated from A1A to sideband or FM digital transmissions "since digital use ...is the only modulation method that is growing in use and able to take advantage of modern technology and allow efficient use of the radio spectrum."

A well written petition, but the Commission never acknowledged receipt of it. There is also no K6SPF call sign listed in the call book, no Ineptio (an interesting city name since 'inept' is defined as 'lacking ability for a task') in California and no Hans L. Klager listed as an amateur in our name cross-reference file. I wonder how many amateurs re-reported this news story as legitimate? Rumors of an imminent "Extra First Class" license have been around for some time, but there is nothing to it.

.....

HAM OPERATOR CERTIFICATE MARKETED

There is an operation in Brentwood, Tennessee 37027, that operates from P.O. Box 1006. Twenty Meter Litho, as they call themselves, has printed up a batch of the old FCC Form 659's - the large (now discontinued) blue certificate previously available only to Extra Class ham operators.

For eight bucks (which seems incredibly high to us) they will furnish you with a large FCC amateur radio operator certificate "...the touch of class that has adorned station walls for decades." The FCC never issued Novice, Technician, General or Advanced versions, but Twenty Meter Litho has these available, too.

We question whether outsiders can issue official looking FCC certificates. It appears that the actual FCC Form 659 was merely copied and printed. When the Commission issued Form 659 certificates, the FCC's issuing officer signed them ...wonder who signs these forms for the Commission now?

THE ANSWERS TO ALL FCC TESTS ARE AVAILABLE! FCC-Novice Study Guide \$3.00 + \$1.00 postage
FCC-Novice Study Guide \$1.50 + 50¢ postage
The W5YI Report, even though a VEC in all regions

¶ The Alabama Referendum on 15-kHz versus the 20-KHz 2-Meter band plan ended with 20-kHz emerging as the clear winner! You will remember that the frequency coordinator (the Alabama VHF-UHF Council) simply wished the 20-kHz plan on repeater owners to become effective in 90 days (July 1, 1985.) Many repeater owners were annoyed that their opinions were not asked. A year later, the Council decided to hold a vote.

Ballots were sent to 104 Alabama repeater owners that were affected by the 20-kHz plan - i.e. those with repeaters between 146 to 148 MHz. The Alabama VHF-UHF got back 70 votes - 42 voted for the 20 kHz plan, 26 to revert back to 15 kHz and 2 abstentions. Thus the 20 kHz plan remains.

••••

GMRS USERS IN EFFORT TO SAVE SERVICE

The battle to save the General Mobile Radio Service - the old Class "A" CB band - is on! On January 30th, the FCC began an inquiry looking toward abolishing the General Mobile Radio Service and replacing it with a short-range CB walkie-talkie service.

A fund raising drive has been launched by the Personal Radio Steering Group (PRSG), an Ann Arbor (Michigan) GMRS group, to support an educational program about the value of GMRS as it is presently structured. Already close to 6,000 letters have been sent out to GMRS licensees and public safety officials. Another 12-14,000 are to be mailed.

PRSG said in a recent newsletter to their membership that the FCC intends to pursue the creation of the new Consumer Radio Service without providing any comparable alternatives for current GMRS users and their equipment.

"It is vital that the FCC receive an overwhelming outcry of public rejection of their inquiry." PRSG suggested a two-pronged effort ...by public comment to the FCC directly ...and by Congressional pressure.

"The pressure from the public and from Congress must emphasize that the proposed Consumer Radio Service constitutes a major

'take away' of existing privileges and benefits," PRSG said, "and that the FCC should proceed instead with the long overdue immediate improvements to the GMRS requested by its own Congressionally chartered Advisory Committee eight years ago, and updated in the [PRSG] Petitions."

The PRSG published a format for commenters to use and even told them what they should say... but "Be original, don't merely duplicate word-for-word the arguments or observations contained in these informational materials."

"Inquiries and expressions of concern from Capitol Hill carry a lot of weight at the FCC," PRSG said. They also suggested arranging in-person visits "with your Washington representatives."

An attached PRSG public interest message about the new FCC suggested Consumer Radio Service pictured it as two tin cans linked by string.

I spoke to Johnny Johnston, W3BE, (Chief of the FCC's Washington Personal Radio Branch) this past week and he tells me that they are indeed receiving a lot of negative comments about CRS from the public.

FINAL HEARING ON PRIVACY ACT HELD....

The fourth public hearing on the Electronic Privacy Act (HR-3378) was held last month. The bill is designed to rewrite the federal wiretapping law since present legislation does not cover computer data, digital or fiber-optic transmissions ...nor does it protect newer telephone technologies such as cordless or cellular radiotelephones.

While monitoring the radio spectrum is not illegal under the law, there are those that believe that some radio users do indeed have an expectation of privacy therefore certain listening should be prohibited. The law does provide for penalties for divulging or misusing information obtained by private radio reception. Ten percent of the public own scanners and general coverage receivers capable of monitoring a wide slice of the spectrum. Are

W5YI REPORT.....

Page #6

April 15, 1986

these people criminals?

James Knapp is Deputy Assistant Attorney General of the Justice Department's Criminal Division. He testified at the final hearing that Justice's position is that "We think that citizen's scanning for recreation purposes should not incur criminal or civil liability. We feel that the bill should contain a provision that a citizen will only incur criminal or civil liability where the citizen both intercepts and divulges the communication under circumstances in which the interception and divulgence are illegal, tortuous or for commercial gain."

Carlos Moorhead (R-Calif.) said that "all kinds of mischievous things [can be done] if you've got one of those scanners." He mentioned monitoring family fights, private conversations between someone and their girl friend, inside information that stockbrokers might be giving out..."

Also referring to a Regency scanner ad "...military, FBI, space satellites, police and fire departments, aeronautical bands, immigration, paramedics, amateur radio, Justice Department, State Department, plus thousands of other frequencies [can be listened to.] These are people's private calls and obviously something should be done to limit the range of these scanners."

"Our bill tries to get at the basic problem, and that is deliberately trying to intercept these calls," Moorhead said. There is "no intent" to affect someone who "just happens to get on their band or something," he said. "They should just switch to the next band... What concerns me is that you say that you cannot generally try to protect these calls."

The Justice Department had argued that since cellular telephones can be picked up on various types of receivers (as can cordless phones), "the cellular transmission conceivably should be entitled to no more reasonable expectation of privacy than the cordless transmission unless it can be encrypted in some way."

Knapp agreed to look again at the problem of whether, in his words, "we should go

that second step, and predicate a violation based on the interception itself."

In his written statement, Knapp also said that "consideration should be given to outlawing devices manufactured in the future that are used to intercept cellular telephone conversations, at least where they are primarily designed for that purpose." Moorhead tried, but was unable, to locate advertising for scanners which he said were being sold "solely" for the purpose of listening to cellular phone conversations.

Terry Colgan, WD5GWC, of the Association of North American Radio Clubs (ANARC) - an SWL group - submitted a supplemental statement about the "shockingly pervasive misrepresentation" by cellular systems operators about the privacy of cellular phone transmissions. ANARC said "It is clear that the expectation of privacy in cellular communications is actively cultivated by the [cellular] companies, and is based on claims that are contrary to the facts. ...In the manner of a self-fulfilling prophecy, these false expectations of privacy are now being used by the cellular radio industry as 'evidence' of the need for protection of HR-3378."

ANARC refuted the often-repeated argument that cellular phone calls are harder to receive than cordless phone calls: "They [cellular calls] are substantially less secure because there are many more receivers capable of tuning them in (i.e., TV sets), these receivers are more modulation compatible than in the case of cordless phones, and the broadcast coverage area of cellular is many times larger. ...The vulnerability of cellular is profound and directly attributable to the way it is designed."

ANARC also objected to AT&T's requests to extend HR 3378's prohibitions against reception of radio communications. "AT&T's proposal is stunning in its arrogance," the association said. "It asserts the right to electronically invade anyone's space, while denying him or her the right to detect the invasion."

A revised draft of HR 3378 is expected shortly.

W5YI REPORT.....

Page #7

April 15, 1986

CONSUMER ELECTRONICS - VOLATILE!

¶ Should Congress adopt legislation providing for a surcharge on audio equipment and blank tapes as a means of reimbursing the recording industry for their copyrighted music? That's one option being considered in Senate Bill S.1739 by the Senate Copyright Subcommittee.

Another is a new low cost method developed by CBS of encoding music so that it can't be copied by today's recording equipment. The system won't prevent consumers from copying existing recordings, however, thus the recording industry still feels a supplemental surcharge is needed. Blank tape and recording equipment manufacturers maintain that the royalty charge is unfair and illegal.

The new encoding technology consists of a recorded inaudible "notch" that, when detected, interrupts the recording for 25 seconds. A special decoder micro-chip is needed to "read" copy protected albums, tapes and compact disc recordings. Under the new industry proposal, two versions of recordings (and hardware) will be marketed to the public - a lower price version that doesn't allow copying and another at a higher price that does. The price differential supposedly goes to the music copyright owner.

¶ Now that rate deregulation is with us (effective January 1987) look for higher prices for basic cable TV services - predictably 10-15% more a year ...every year. On top of that, addressable PPV (Pay Per View) capability will mean more recent movies being aired on cable. Every street corner has a home video outlet now. Movie distributors give theaters preference, then home video and cable/television in that order.

When PPV gets going, look for the same mass hysteria among the neighborhood video outlet that is prevalent among the home satellite industry now that scrambling is becoming widespread. The regulatory environment of cable becomes marketplace oriented in just eight months!

¶ And speaking of scrambling, the Justice Department is stepping up their investi-

gation into distribution of encoded programming to home dish owners. Records have now been summoned from several cable companies and programmers including HBO. Of particular concern is whether programming is being withheld from services capable of distributing them at lower prices.

Congress is looking into regulating scrambled signal distribution to backyard earth station owners. Here the marketplace environment could become federally regulated! At present program distribution is handled by satellite program originators and cable companies who may have conspired at the expense of the consumer.

In any event, pay entertainment in the home is a hot subject in Washington these days as the music, movie and satellite programmer along with wireline, broadcast and satellite distributor fight for their share of the pie. One thing is certain. Every home will be a theatre.

¶ The world standard for high definition television (HDTV) may be a little closer! A test held in Italy last month concluded that HDTV can indeed be broadcast over a single 12 ghz DBS (direct broadcast satellite) channel. The test used a Japanese developed HDTV spectrum compression system that transmitted 1,125 line theatre-quality television in 8.1 MHz instead of HDTV's 27 MHz wide bandwidth. The HDTV world standard is to be considered at next month's CCIR (International Radio Consultative Committee) meeting.

¶ Viewer's Choice, World Video Library, Request TV, EventTeleVision and People's Choice are all new scrambled PPV services that are quietly signing up affiliation arrangements with cable systems. Cable systems with addressable subscribers now number in the millions! Ted Turner (who just bought MGM/UA) will make "Rocky IV" available to PPV this Memorial Day weekend! Neighborhood home video outlets (who won't get the film before PPV does) are already screaming!

¶ Video cassette recorders and projection TVs are still the hot consumer electronic items! Projection TV sales are up 41.1% over last year. (11.8 million VCR's sold in 1985.)

W5YI REPORT.....

Page #8

April 15, 1986

¶ Zenith has introduced a new concept in addressable cable converters. Zenith's box is RF addressable - that is a radio signal turns it on. They also debuted a new unscrambling device called the "Pay Mate" that makes older non-addressable converters addressable.

¶ While on the subject, ever wonder how the M/A-Com VideoCipher II home satellite industry encryption standard works? It is virtually impossible to break! Technically the VideoCipher scrambles signals by totally removing the audio subcarrier and eliminating vertical and horizontal sync - two elements you need to get a fix on to unscramble. The two audio channels are digitized and must be translated by a handshaking routine built into a specific authorized decoder on the receiving end. Even if you break the code, there's a different code every 30th of a second! Without the appropriate decoder, the incoming signal shows up as random data.

¶ By the way, M/A-Com has set up an incoming toll free number to serve backyard dish owners who need one of the decoders. Have 400 bucks ready when you call 1-800-672-9597. At least one consumer manufacturer isn't too happy with the M/A-Com descrambling technology. Radio Shack's president, John Roach, issued a public statement saying that the M/A-Com decoder was over-priced and that "home dish owners shouldn't have to pay tribute to the local CATV monopoly." He questioned decoder distribution by cable operators. Roach said that "looking inside a decoder, we believe it could easily sell for half of the present rate in a competitive environment with more than one supplier. ...The private greed of a few should not prevail over the public interest..."

¶ HBO has asked the FCC to reclassify subscription and DBS (direct broadcast satellites) as non-broadcast point-to-multipoint services to remove them from obligations imposed on the broadcast industry. HBO also asked cable companies to deliver stereo audio both on the FM band and through the new industry approved stereo format. Some 250 TV stations have begun broadcasting in stereo and 20% of the color sets sold in 1986 are expected to be in stereo thereby making FM simulcasting unnecessary.

¶ Retailers may be next to turn against cable. The Home Shopping Network now has two services (HSN-I and HSN-II) that pay commissions to cable operators that sell discounted general merchandise for them. Commission percentages increase based on length of time affiliated, higher subscriber audiences and if both "clubs" are offered. Home buyers call one of 600 toll free "800" numbers and charge purchases against a major credit card.

¶ The wired nation now stands at 46.8%. Over 40.4 million homes now have cable. Penetration up 5% from last year's 44.6%. Industry publication, Advertising Age projects a 60% cable penetration by 1995 with 70% of all homes owning a VCR - 34% a personal computer - 18% connected to a videotex information service.

¶ Determining just how many are watching cable, however, is another story! Audience measurer A.C. Nielsen plans to install "People Meters" within the next 90 days! The current diary system kept by selected TV viewers is being phased out with total conversion to "People Meters" to take place by 1988. The meter was developed by AGB Research who plan to compete with A.C. Nielsen. Another rating service (Arbitron) recently sued a Tulsa broadcast station for paying listeners who list their station in Arbitron diaries!

¶ Pay cable service, "The Movie Channel - has introduced a late night segment entitled "VCR Theatre" catering to those who tape movies for later viewing. The 3 a.m. segment will feature the day's best offering. Movie makers are furious with cable operators who complain about the public pirating their signals but urge people to steal their product!

¶ Will the CRT and photographic film become a relic of the past? It could happen as LCD and magnetic media technology develop. The present CRT advantage of improved resolution and brightness is about to vanish as new dyes added to host material improve liquid crystal display clarity and appearance. LCD TV's using less electricity can be hung on the wall and can be manufactured to only 1/2 inch thickness! Still pictures stored on small video floppy disks can be played back

"I am a currently licensed Extra Class amateur radio operator and wish to be a volunteer examiner. I have never had my station or under "The W5YI Report" Program? If so, please send a copy

W5YI REPORT.....

Page #9

April 15, 1986

instantaneously or printed out in color. A modem can even transmit the image over the phone lines to Grandma! Both Sony and Panasonic readying magnetic alternatives to film.

¶ A 23 year old electrical engineering student at the University of New Mexico has invented a voice-actuated wheel chair that responds to 19 commands. It uses a standard Apple II computer together with a voice processing module. Paul Hofstadler designed the wheelchair for a quadriplegic friend.

¶ License fees for FCC licensees apparently will soon be with us but the FCC won't see any of it. The expected \$100 million "cost-of-regulation fees" will be deposited in the U.S. Treasury to reduce the federal deficit. The personal radio services including amateur radio are exempted. It will cost \$30 for a business band (Land Mobile) permit, however. Communications organizations oppose the fees saying that it amounts to a tax. The FCC supports them.

¶ Bell Laboratories is working on a computer that understands different American accents - from Texas drawls to Noo Yawkese. The day is coming when you'll converse directly with a machine instead of a person for all sorts of reasons.

¶ Cellular telephone service is now available on the train! You can place calls when travelling between New York and Washington. \$4.75 for first 3 minutes - \$1.00 a minute thereafter to anywhere in the U.S.

¶ Science News reports that officials attending a computer security conference claim that half of the 17,000+ computers in the Department of Defense are vulnerable. Researchers are studying devices like "smart cards" that incorporate imbedded supplemental passwords. The card will automatically record what information has been accessed and leave an "audit trail."

¶ The Department of the Treasury which handles 2 trillion a year has failed an audit by the General Accounting Office. The GAO said that weak security controls have resulted in increased vulnerability to fraud, waste and abuse in data processing systems.

¶ Meanwhile, a group of California teenager hackers have broken into a TRW credit bureau information system after obtaining the password from an underground computer bulletin board. Using Commodore 64's and 128's, the youths determined available credit limits of credit card numbers obtained from discarded charge slip carbons found at a local shopping center trash bin. They were found out and arrested after an unordered IBM personal computer that had been ordered by the hackers arrived at a neighbor's home.

¶ Federal government - especially the Pentagon - very concerned about foreign exchange students that enroll in college courses using supercomputers. They cite possible national security problems.

¶ A new weapon against car theft has been developed by a Braintree, Massachusetts, company. A small battery-operated addressable narrow-band radio transceiver is hidden under auto hoods, in the trunk or even in the upholstery. The radio broadcasts its code signal when activated remotely. A tracking device in a police cruiser picks up the signal and displays the relative direction and distance of the stolen car. The police simply drive to the thief and arrest him!

¶ IBM finally unveiled their long heralded laptop computer although they call it a "convertible." (Weight: 13 pounds with 256K RAM, \$1995) Also announced were several price cuts on existing personal computers. (Examples: One drive PC to \$1845, 256K PC-XT to \$2145, etc.)

¶ Commodore also has slashed the price of its 256K Amiga 1000 computer to \$1489. (One disk drive and a color monitor included.) But there is a catch. You have to be a student to take advantage of the special 25% off deal. Price cut is to bolster share of college market. Available until June 30.

¶ Japanese chip makers getting ready to participate in the expected boom in "smart cards" E²PROMs (electrically erasable programmable read-only memories) imbedded in credit or bank cards will keep track of your balance and/or credit history. They will be read by point-of-sale equipment. Fujitsu,

Mitsubishi, NEC, Hitachi and Oki Electric all have 64K or 256K versions in development.

¶ A low price (\$498) automatic telemarketer has been developed to sell almost anything! Callers respond to prompts by pushing appropriate buttons on their telephone keypads. After hearing a description of the product, you can order it (by voice) by responding to prompts for names, addresses, purchase order numbers and charge card numbers. At another prompt, you can even leave a message for a human call back. The IBM-PC computerized order system stores speech on floppy or hard disks.

¶ Santa Clara County (California) police have finally determined who has been making phantom calls to their 911 emergency number. It is the telephones themselves - sometimes assisted by household appliances such as microwave ovens, vacuum cleaners, blenders and refrigerators! Pacific Bell Telephone acknowledged it as a national problem. Cordless phones have a tendency to dial spurious numbers when their batteries are low and somehow are affected by appliances on the same electrical circuit. NEMA (National Emergency Number Association) says the problem is "industrywide" and has nothing to do with the specific brand of telephone. APSCO (Associated Public Safety Communication Officers) are trying to document the problem for the FCC.

¶ The FCC has decided to let phone companies sell both equipment and service rather than operate as separate firms. As proposed, telephone companies would have to price service and equipment separately so a customer could decide whether it is cheaper to buy phones from someone other than the local phone company. Local telephone companies are still banned from manufacturing telephones, however, but Congress is considering abolishing those provisions along with restrictions which prevent local phone companies from entering the information and long-distance service market.

¶ Sears Business Systems Centers apparently aren't doing too well. The Sears computer centers are cutting back on expansion plans and beefing up their outside sales force.

Some Sears Business Centers have already closed. Now comes word that Apple's Macintosh is quietly being discontinued by Sears.

¶ When VISA put holograms on its credit cards, they thought this would foil counterfeitors! Not so. Thieves are re-embossing flattened out old credit cards with valid numbers. VISA now is supplying point-of-sale magnetic strip readers to detect re-embossed cards!

¶ We guess the Conus Over-The-Horizon Backscatter (OTH-B) HF radar network isn't much of a classified military secret. General Electric, the prime contractor, has released just about all the details on it ...or so it seems. "The purpose of O-T-H radar is to detect bombers that fly at low altitude, supersonic speeds at distances that can't be seen by existing coastal warning radars. O-T-H radar extends the range of our coastal radar to provide the North American Air Defense Command (NORAD) with adequate warning time needed to respond to approaching enemy aircraft", the GE flyer reads.

"The OTH-B radar can detect low flying aircraft at ranges up to ten times greater than conventional microwave radars. This unique radar operates in a frequency range where its radar energy reflects off of the ionosphere (or multiple bounces) to see around the earth's curvature. In this way, bombers can be tracked out to 1,800 miles from our coastline."

"One OTH-B radar can provide the same low altitude coverage as 1,000 conventional microwave radars. Each radar provides all altitude surveillance from 500-1800 miles over a 60° sector. Computers automatically detect, track and identify targets to the radar system operator. Operating frequency is from 5 to 28 MHz" - [which includes three HF amateur bands, we might add.]

As we mentioned in our March 15th newsletter, a total of three OTH-B sites will protect the U.S. The Russian woodpecker has long been a problem to ham operators worldwide. It's due to have company. Hopefully, it will keep out of the ham bands. The \$64 question is, just whose bands will it operate in since all HF spectrum is presently allocated?